EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Aslam Jaffery on December 7, 2010, and Greg Coldwell on January 5, 2011.

The application has been amended as follows:

15. A multi-service monitoring system comprising:

computer server systems having a cluster of application servers communicatively coupled

on a computer network to serve software application over the computer network to a plurality of

computer client systems, wherein each computer server system including an application server

having:

an administration service to generate runtime management beans ("MBeans"), wherein

each runtime MBean is associated with one or more resources such that each runtime MBean

serves as an intermediary between its one or more associated resources and a corresponding

monitor MBean of monitor MBeans that seeks monitoring data relating to the one or more

resources, each runtime MBean collecting monitoring data relating to the one or more associated

resources and reporting the monitoring data to the corresponding monitor MBean, wherein each

monitor MBean to actively receive the monitoring data from a corresponding runtime MBean via

active instrumentation, wherein the active instrumentation is performed upon occurrence of a

specified event associated with the one or more resources; and

a monitor service in communication with the administration service, the monitor service

to generate the monitor MBeans, each monitor MBean being directly mapped to a corresponding

runtime MBean and indirectly mapped to a resource associated with the corresponding runtime

MBean, and each monitor MBean having a resource identifier to identify its corresponding

runtime MBean;

<u>wherein each computer server system including an application server further having:</u>

<u>a notification server to generate notifications in response to occurrence of one or more</u>

<u>specified events relating to one or more runtime MBeans or one or more monitor MBeans, the</u>

<u>notification service providing the notifications to each application server in the cluster of</u>

<u>application servers.</u>

15. Cancel.

30. A method comprising:

communicatively coupling a cluster of application servers on a network to serve software

applications over the network to a plurality of clients;

generating runtime management beans ("MBeans"), wherein each runtime MBean is

associated with one or more resources such that each runtime MBean serves as an intermediary

between its one or more associated resources and a corresponding monitor MBean of monitor

MBeans that seeks monitoring data relating to the one or more resources, each runtime MBean

collecting monitoring data relating to the one or more associated resources and reporting the

monitoring data to the corresponding monitor MBean, wherein each monitor MBean to actively

receive the monitoring data from a corresponding runtime MBean via active instrumentation,

wherein the active instrumentation is performed upon occurrence of a specified event associated

with the one or more resources;

generating the monitor MBeans, each monitor MBean being directly mapped to a

corresponding runtime MBean and indirectly mapped to a resource associated with the

corresponding runtime MBean, and each monitor MBean having a resource identifier to identify

its corresponding runtime MBean; and

generating notifications in response to occurrence of one or more specified events

relating to one or more runtime MBeans or one or more monitor MBeans, the notification service

providing the notifications to each application server of the cluster of application servers.

31. Cancel.

36. A non-transitory machine-readable storage medium comprising instructions which,

when executed, cause a machine to:

communicatively couple a cluster of application servers on a network to serve

software applications over the network to a plurality of clients, each of the application servers

comprising server nodes;

generate runtime management beans ("MBeans"), wherein each runtime MBean is

associated with one or more resources such that each runtime MBean serves as an intermediary

between its one or more associated resources and a corresponding monitor MBean of monitor

MBeans that seeks monitoring data relating to the one or more resources, each runtime MBean

collecting monitoring data relating to the one or more associated resources and reporting the

monitoring data to the corresponding monitor MBean, wherein each monitor MBean to actively

receive the monitoring data from a corresponding runtime MBean via active instrumentation,

wherein the active instrumentation is performed upon occurrence of a specified event associated

with the one or more resources; and

generate the monitor MBeans, each monitor MBean being directly mapped to a

corresponding runtime MBean and indirectly mapped to a resource associated with the

corresponding runtime MBean, and each monitor MBean having a resource identifier to identify

its corresponding runtime MBean,

wherein the instructions which, when executed, further cause the machine to:

generate notifications in response to occurrence of one or more specified events relating

to one or more runtime MBeans or one or more monitor MBeans, the notification service

providing the notifications to each application server of the cluster of application servers.

37. Cancel.

39. Change "The tangible" in line 1 to "The <u>non-transitory</u> ".

41. Change "The tangible" in line 1 to "The <u>non-transitory</u> ".

52. Change "The system as in claim 16" in line 1 to "The system as in claim <u>15</u>".

55. Change "The method as in claim 31" in line 1 to "The method as in claim <u>30</u>".

57. Change "The tangible" in line 1 to "The <u>non-transitory</u> ".

58. Change "The tangible machine-readable storage medium as in claim 37" in line 1 to

"The <u>non-transitory</u> machine-readable storage medium as in claim <u>36</u>".

59. Change "The tangible" in line 1 to "The <u>non-transitory</u> ".

Allowable Subject Matter

2.   Claims 15, 18, 20, 30, 32, 35, 36, 39, 41, 44-45, 48, and 51-59 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims are considered allowable when reading the claims none of the references of record alone or in combination, in light of the specification, disclose or suggest the combination limitations specified in the independent claims including each monitor MBean being directly mapped to a corresponding runtime MBean and indirectly mapped to a resource associated with the corresponding runtime MBean, and each monitor MBean having a resource identifier to identify its corresponding runtime MBean, wherein each computer server system including an application server further having a notification server to generate notifications in response to occurrence of one or more specified events relating to one or more runtime MBeans or one or more monitor MBeans, the notification service providing the notifications to each application server in the cluster of application servers.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rupal D. Dharia/   Van Kim T. Nguyen
Supervisory Patent Examiner, Art Unit 2400   Examiner
                                                          Art Unit 2456

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